

इंटरनेट

मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 11937 (1987): Carbide Tipped Machine Jig Reamer With Morse Taper Shank [PGD 32: Cutting tools]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

SPECIFICATION FOR CARBIDE TIPPED MACHINE JIG REAMER WITH MORSE TAPER SHANK

1. Scope — Covers the dimensions and requirements for carbide tipped machine jig reamers with morse taper shank.

2. Types

Type A — Straight flutes.

Type B — Helical flutes.

3. Dimensions — Shall be as given in Table 1.

4. Tolerances

4.1 The tolerances on cutting length and overall length shall be as follows:

All dimensions in millimetres.

Length		Tolerances
Over	Up to and including	
6	30	± 1.0
30	120	± 1.5
120	315	± 2.0
315	1 000	± 3.0

5. General Requirements

5.1 Back Taper — Reamers shall be provided with back taper on cutting diameter and the value of taper shall be within the limits of tolerance on the cutting edge diameter.

5.2 Flutes, unless otherwise specified, shall be right hand cutting.

5.3 The carbide tips shall be according to IS : 9327-1979 'Carbide tips for reamers, core drills, end mills and slot drills'.

5.4 An oil groove shall be provided on the guide portion.

5.5 Other requirements shall be according to IS : 10923-1984 'Technical supply conditions for carbide tipped and solid carbide reamers'.

6. Sampling — The sampling and criteria of acceptance shall be in accordance with IS : 7778-1975 'Methods for sampling small tools'.

7. Designation

7.1 A carbide tipped machine jig reamer of Type A having diameter $d = 12$ mm carbide tip of range of K10, conforming to this standard and suitable for a hole with tolerance H8 shall be designated as:

CT Jig Reamer A 12 IS : 11937 K10.

7.2 When the reamer is required for a hole with other than H8, an appropriate hole tolerance shall be included in the designation after size.

8. Certification Marking — Details available with the Bureau of Indian Standards.

EXPLANATORY NOTE

This standard has been prepared based on the current practices prevalent in the Indian industries.

Adopted 17 March 1987

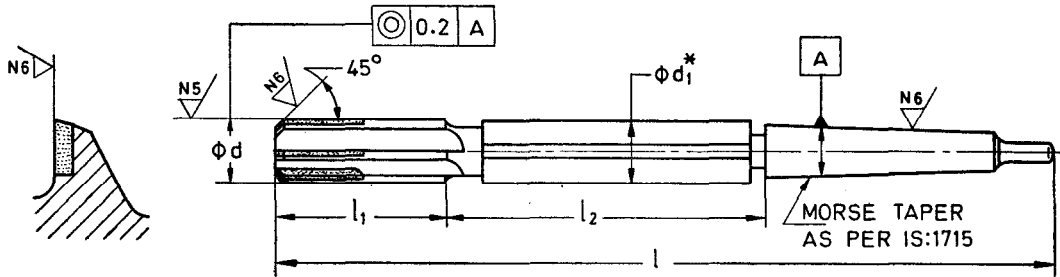
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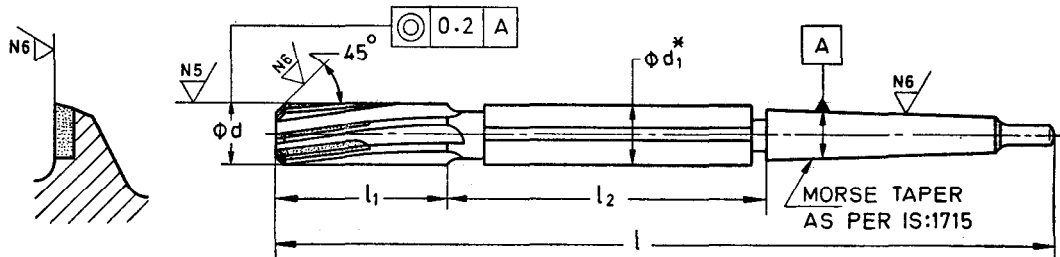
TABLE 1 DIMENSIONS FOR CARBIDE TIPPED MACHINE JIG REAMER WITH MORSE TAPER SHANK

All dimensions in millimetres.

N9/ (N5/ , N6/)



TYPE A



TYPE B

d m6	Range of Diameter _i		l ₁	l ₂	l	Morse Taper	No. of Flutes	Carbide Tip
	Over	Up to and Including						
7.0	6.7	7.5	31	53	150	1	6	R 16
8.0	7.5	8.5	33	57	156			
9.0	8.5	9.5	36	60	162			
10.0	9.5	10.6	38	64	168			R 19
11.0	10.6	11.8	41	68	175			
12.0	11.8	13.2	44	72	182			
(13.0)	13.2	14.0	44	72	182	2	6	R 22
14.0	13.2	14.0	47	76	189			
(15.0)	14.0	15.0	50	74	204			
16.0	15.0	16.0	52	78	210			R 25
(17.0)	16.0	17.0	54	80	214			
18.0	17.0	18.0	56	83	219			
(19.0)	18.0	19.0	58	85	223	3	6	R 30
20.0	19.0	20.0	60	88	228			
(21.0)	20.0	21.2	62	90	232			
22.0	21.2	22.4	64	93	236			R 30
(23.0)	22.4	23.6	66	95	264			
(24.0)	23.6	25.0	68	101	268			
25.0	23.6	25.0	68	101	268	4	8	R 30
(26.0)	25.6	26.5	70	104	268			
(27.0)	26.5	28.0	70	104	273			
28.0	26.5	28.0	71	107	277			R 30
(30.0)	28.0	31.5	73	109	281			
32.0	31.5	33.5	77	114	317			
(34.0)	33.5	35.3	78	119	321	4	10	R 30
(35.0)	33.5	35.3	78	119	321			
36.0	35.5	37.5	79	122	325			
(38.0)	37.5	40.0	81	124	329			R 30
40.0	37.5	40.0	81	124	329			
(42.0)	40.0	42.5	82	127	333			
(44.0)	42.5	45.0	83	129	336	4	10	R 30
45.0	42.5	45.0	83	129	336			
(46.0)	45.0	47.5	84	132	340			
(48.0)	47.5	50.0	86	134	344			
50.0	47.5	50.0	86	134	344			

Note — Non-preferred sizes are given in parentheses.

*The diameter d_1 shall be equal to the diameter of the reamer with a tolerance of h6. However, the actual diameter d_1 shall not exceed diameter d .

AMENDMENT NO. 1 JANUARY 1991

TO

IS 11937 : 1987 SPECIFICATION FOR CARBIDE TIPPED MACHINE JIG REAMER WITH MORSE TAPER SHANK

(Page 1, clause 5.1) — Substitute the following for the existing clause:

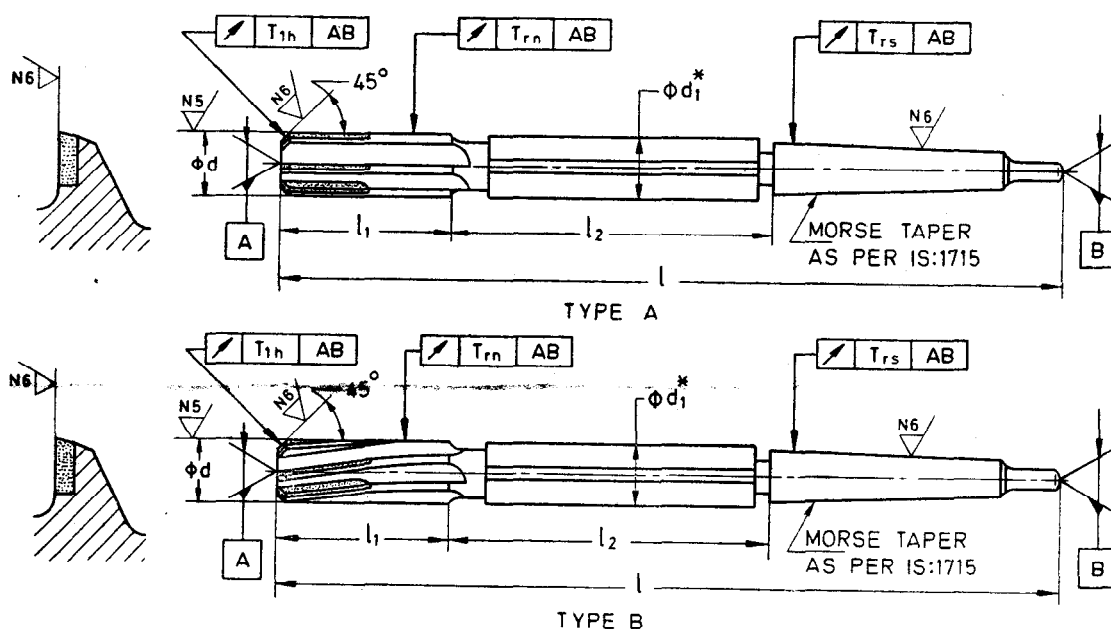
"5.1 Back Taper — Reamers shall be provided with back taper on cutting diameter and the rate of taper shall be as given in 6.2 of IS 10923 : 1984 'Technical supply conditions for carbide tipped and solid carbide reamers'."

(Page 2, Table 1) — Substitute the following for the existing table:

TABLE 1 DIMENSIONS FOR CARBIDE TIPPED MACHINE JIG REAMER WITH MORSE TAPER SHANK

All dimensions in millimetres.

N9/ (N5/, N6/)



d m6	Range of Diameter		l ₁	l ₂	l	Morse Taper	No. of Flutes	Carbide Tip
	Over	Up to and Including						
7.0	6.7	7.5	31	53	150	1	4	R 16
8.0	7.5	8.5	33	57	156			
9.0	8.5	9.5	6	60	162			
10.0	9.5	10.6	38	64	168		6	R 19
11.0	10.6	11.8	41	68	174			
12.0	11.8	13.2	44	72	182			
(13.0)			44	72	182			
14.0	13.2	14.0	47	76	189			

(Continued)

**TABLE 1 DIMENSIONS FOR CARBIDE TIPPED MACHINE JIG REAMER WITH
MORSE TAPER SHANK — Contd**

d m6	Range of Diameter		l ₁	l ₂	l	Morse Taper	No. of Flutes	Carbide Tip	
	Over	Up to and Including							
(15·0)	14·0	15·0	50	74	204	2	6	R 19	
16·0	15·0	16·0	52	78	210			R 22	
(17·0)	16·0	17·0	54	80	214				
18·0	17·0	18·0	56	83	219				
(19·0)	18·0	19·0	58	85	223				
20·0	19·0	20·0	60	88	228				
(21·0)	20·0	21·2	62	90	232			R 25	
22·0	21·2	22·4	64	93	237				
(23·0)	22·4	23·6	66	95	241				
(24·0)	23·6	25·0	68	101	268	3	8		
25·0			68	101					
(26·0)	25·0	26·5	70	104	273				
(27·0)	26·5	28·0	70	104					
28·0			71	107	277				
(30·0)	28·0	31·5	73	109	281			4	10
32·0	31·5	33·5	77	116	317				
(34·0)	33·5	35·5	78	119	321				
(35·0)			78	119	321				
36·0	35·5	37·5	79	122	325				
(38·0)		40·0	81	124	329				
40·0			81	124	329				
(42·0)	40·0	42·5	82	127	333				
(44·0)	42·5	45·0	83	129	336				
45·0			83	129	336				
(46·0)	45·0	47·5	84	132	340				
(48·0)	47·5	50·0	86	134	344				
50·0			86	134	344				

Note — Non-preferred sizes are given in parentheses.

*The diameter d_1 shall be equal to the diameter of the reamer with a tolerance of h6. However, the actual diameter d_1 shall not exceed diameter d .